

## Datasheet: MCA2363A647T

<b>Description:</b>	RAT ANTI MOUSE CD122:Alexa Fluor® 647
<b>Specificity:</b>	CD122
<b>Other names:</b>	INTERLEUKIN-2 RECEPTOR BETA CHAIN
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	TM-BETA 1
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	25 TESTS/0.25ml

## Product Details

**RRID** AB\_1100653

**Applications** This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system to a concentration equivalent to their test reagent.

**Target Species** Mouse

**Product Form** Purified IgG conjugated to Alexa Fluor® 647- liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665

**Preparation** Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Buffer Solution** Phosphate buffered saline

**Preservative** 0.09% Sodium Azide  
**Stabilisers** 1% Bovine Serum Albumin

**Approx. Protein Concentrations** IgG concentration 0.05 mg/ml

**Immunogen** Cells from murine IL-2RB<sup>+</sup> transformant TART-mBeta.

**External Database Links**  
**UniProt:**  
[P16297](#) [Related reagents](#)

**Entrez Gene:**

[16185](#) [Il2rb](#) [Related reagents](#)

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**Fusion Partners** Lymph node cells from immunised Sprague Dawley rats were fused with cells of the mouse PA1 myeloma cell line.

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**Specificity** **Rat anti Mouse CD122 antibody, clone TM-BETA 1** recognizes the murine CD122 cell surface glycoprotein, a ~75-85 kDa molecule also known as interleukin-2 receptor (IL-2R) beta chain. In mouse, CD122 is primarily expressed on natural killer (NK) cells and at lower levels on lymphocyte subsets, monocytes and macrophages.

CD122 can associate with the IL-2R alpha chain (CD25) and CD132 to form a functional high affinity receptor complex that binds IL-2. CD132/CD122 heterodimers can also be formed which bind IL-2 with intermediate affinity. IL-2 binding to the IL-2R is important in the generation and differentiation of T lymphocytes and NK cells.

Rat anti Mouse CD122 antibody, clone TM-BETA 1 blocks IL-2 high affinity binding to the IL-2R beta receptor ([Tanaka et al. 1991](#)).

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**Flow Cytometry** Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/B](#)).

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**References**

1. Tanaka, T. *et al.* (1991) A novel monoclonal antibody against murine IL-2 receptor beta-chain. Characterization of receptor expression in normal lymphoid cells and EL-4 cells. [J Immunol. 147 \(7\): 2222-8.](#)
2. Leung, K.T. (2011) The tetraspanin CD9 regulates migration, adhesion, and homing of human cord blood CD34+ hematopoietic stem and progenitor cells. [Blood. 117: 1840-50.](#)
3. Chenoweth, M.J. *et al.* (2012) IL-15 Can Signal via IL-15R $\alpha$ , JNK, and NF- $\kappa$ B To Drive RANTES Production by Myeloid Cells. [J Immunol. 188: 4149-57.](#)
4. Mertens, J. *et al.* (2009) Streptococcus pneumoniae serotype 1 capsular polysaccharide induces CD8CD28 regulatory T lymphocytes by TCR crosslinking. [PLoS Pathog. 5 \(9\): e1000596.](#)

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**Storage** Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee** 18 months from date of despatch.

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at:  
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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